MEMORANDUM THRU Garrison Commander, ATTN: COL Horner

FOR Superintendent USMA, LTG Lennox

SUBJECT: After Action Report for Treatment of Battle Dress Uniforms (BDUs) with Permethrin Insect Repellent.

1. SUMMARY: In March 2002 the USMA initiated a purchase request to factory treat approximately 9400 sets of battledress uniforms in the hands of the three upper classes (Class of 2003, 2004 and 2005 @ 3 sets per cadet) and approximately 10,000 sets of new battledress uniforms (BDUs) for the incoming class of 2006. The overall intent is to have all classes protected from contact with ticks that are prevalent in the USMA Cadet Summer Training Areas with factory treated Permethrin BDUs and or Individual Dynamic Absorption (IDA kits).

2. BACKGROUND:

- a. Cadet Services Division (CSD), Directorate of Logistics began a dialogue last fall to identify the Defense Logistics Agency's ability to provide Permethrin treated BDUs to USMA. During this period USMA coordinated with Defense Supply Center Philadelphia (DSCP) and Natick Soldier Support Center to obtain fielding plans, technical data, and other information to facilitate obtaining Permethrin factory treated BDUs. Natick Soldier Support Center provided National Stock Numbers (NSNs) for the treated BDUs as well as purchase descriptions to obtain treated BDUs. Information from Natick indicated that USMA met the criteria for the minimum order threshold for ordering treated BDUs, however, DSCP did not have any stockage of the treated BDUs ready for issue to USMA. DSCP indicated that they would not be able to support USMA with factory treated BDUs for the summer of 2002.
- b. USMA made the decision to issue only factory treated BDUs to the incoming class of 2006 and thereafter. Achieving the goal of sustained issues of factory treated BDUs to future incoming classes is significantly dependent upon DSCP's ability to provide stocks of factory treated BDUs. To meet the requirement to issue factory treated BDUs to CL06, the USMA Directorate of Logistics initially planned on ordering stocks early in December to provide flexibility should USMA need to send stocks off post for treatment. This early ordering time frame is further necessitated by the need to prefabricate BDU shirt kits, which is traditionally performed in the March and April immediately preceding Cadet Basic Training (CBT). The majority of BDU shirts have a U.S. ARMY tape and USCC Shoulder Sleeve Insignia (SSI) sewn onto the un-issued garments. This prefabrication minimizes delivery time to USCC of some 6,000 sets of BDUs with all patches and nametapes applied to CBT Companies on the same day in which they were fit on the individuals. Unfortunately, DSCP was unable to work through some of the contracting issues regarding such as packaging and marking treated BDUs. Although the work with DSCP seemed promising for delivery in February and March 2002 of factory treated BDUs, the packaging and marking issues were problematic in meeting USMA issue requirements.

SUBJECT: After Action Report for Treatment of Battle Dress Uniforms (BDUs) with Permethrin Insect Repellent

- c. Another aspect of the treatment issue concerned treatment of used BDUs (already issued to the three upper cadet classes). DSCP and Natick Soldier Support Center focused their attention on new or un-issued stocks rather than already issued uniforms, which is in line with the respective agencies interests. This made USMA's approach of treating issued uniforms as an unorthodox method. The Individual Dynamic Absorption Kit (IDA) is intended to treat BDUs on an individual basis, however, the kits have several drawbacks, to include, economics, time to treat uniforms, and potential generation of hazardous waste (contaminated water and IDA packaging refuse). Another problem with the IDA kit is the inability to identify the treated BDUs in a uniform manner throughout the Corps of Cadets.
- d. In December 2001, USMA DOL representatives (Mr. Weikel, Mr. Oberle, Mr. Barriage) and USCC representative (SFC Lassus) visited one of the factory treatment sites to obtain information on the process, capability, and potential courses of action available to USMA. The site visit was to Spinnerin Dye LLC, 30 Wesley Street, South Hackensack, NJ 07606. The site visit provided valuable information concerning all logistical aspects of the treatment process, to include shipping, treatment, label sewing, and packaging. From this site visit, the USMA DOL developed two concepts if USMA was to pursue factory treatment for all BDUs. The first concept was to deal with the individually owned BDUs, which would be turned in to the USMA Laundry under a normal laundering turn-in process. Under this concept, the collection and identification methods were already in place that facilitated BDUs were returned to the proper cadet. Additionally, the collected BDUs would be laundered prior to shipment to facilitate full adherence of the Permethrin in the treatment process. The original intent was to ship collected BDUs in laundry carts to minimize additional handling and labor. The treated BDUs would receive a laundering at USMA upon return and delivered the cadet "ready to wear." The intent of the laundering was to minimize discomfort and facilitate return to the cadet through the laundering process. The second concept was to deliver new packaged BDUs in bulk and the treatment contractor would be responsible to ensure treated BDUs were repackaged in original shipping cartons. Spinnerin Dye indicated that both methods were viable and that current customers required such packaging after various fabric treatments for dye, tints, etc.
- e. In developing a statement of work, the two concepts above provided a good framework from which to proceed. Additionally, the DOL needed to develop a statement of work for the label location and modifications to the recommended treatment label. During one of the treatment presentations, it was revealed that dry cleaning breaks down the Permethrin treatment within a garment. This modification was added to the label (Do Not Dry Clean) prior to the USMA solicitation. Another important modification was to have the "shirt treatment label" stitched just below the existing size label in the shirt to enable leaders to verify externally if a cadet was in fact wearing a treated shirt. The stitching is apparent on the backside of the shirt on the 1 ¾" x 1 ¾" label (encl 1).
- f. Another complicating factor concerning the new BDUS was that all stock had been transferred to DLA (DSCP) in February 2002 and DSCP now owned all BDU stocks stored at West Point. Original thoughts concerning this issue was to ship stocks of untreated BDUs to a treatment vendor under a DSCP contract, however, this could not be arranged within a timely manner. The transfer was a result of the Single Stock Fund Initiative for the Army to create one

MALO-CS (700-84)

26 September 2002

SUBJECT: After Action Report for Treatment of Battle Dress Uniforms (BDUs) with Permethrin Insect Repellent

single stock fund of only Army managed items. As the Army was only interested in managing/owning Army Material Command (AMC) commodity items, this necessitated USMA in divesting itself of stocks that did not meet the criteria for inclusion within the Single Stock Fund. Transfer of DLA/DSCP clothing and textile stocks has made USMA a satellite storage activity similar to a Clothing Initial Issue Point (CIIP) such as, Fort Jackson, South Carolina. Although this event is transparent to the customer, it enables USMA to carry a large stock of clothing and textile items and only be billed for items it actually issues to cadets. The mandate of issuing five sets of permethrin treated BDUs (to each cadet) with no immediate sustainment or resupply capability also requires increased stockage requirements on site at West Point. USMA will change all residual BDU stocks to Permethrin BDU stock numbers after it depletes its stock of BDUs following Cadet Basic Training this summer.

- g. After exhausting attempts to obtain treatment through DSCP channels, USMA initiated its own purchase request to obtain factory treated Pemethrin uniforms. A purchase request was prepared by Cadet Services Division, DOL to treat 9400 sets of Cadet personally owned BDUs and 10,000 sets of new BDUs. One of the difficulties in identifying suitable contractors was a perception that vendors were required to be certified to perform this process. It was not until March 2002, when DSCP revealed that there was no certified vendor list, but rather vendors who were known to have the required equipment and regulatory permits to perform the treatment function. To facilitate competition, International Garment Technologies of North Carolina was considered as a treatment vendor in addition to Warmcraft and Spinnerin. Information concerning these three vendors was provided to the USMA Contracting office for solicitation.
- h. The treatment process commenced in April 2002 and continued into May 2002. The contractor that provided the most competitive bid was International Garment Technologies. International Garment Technologies provided transportation to pick-up, transport and return BDU uniforms to West Point. Phase I of the effort commenced in April 2002 with the treatment of personal property BDUs (already issued to cadets). These BDU uniforms were collected by regiment through the USMA laundry process and were transferred to UNI-PAK type stackable shipping containers as provided by International Garment Technologies at the installation laundry plant. DOL planned to backfill any space on the 53' trailer with pallets of new (depot pack) BDU shirts and trousers to maximize lift. In all, four round trip shipments were made from West Point and return. Phase I completion suspense was 1 May 2002. Phase II efforts focused on un-issued (new) BDUs. Suspense to treat these stocks was NLT 5 June 2002. A total of approximately 8,402 sets of personal property BDUs were treated for the classes of 2003, 2004, and 2005 respectively. Regimental turn-ins is broken down as follows: 3rd Regiment – 3,591 sets; 4th Regiment – 4,053 sets; 1st Regiment – 3,737 sets; 2nd Regiment – 4,383 sets. Approximately 10.000 sets of new un-issued BDUs were treated and returned to USMA. It should be noted that the depot pack BDUs were treated and returned to original packaging/boxes without any special or modified packaging requirements. During Cadet Basic Training on 2 and 3 July 2002, over 5900 sets of permethrin treated BDUs (11,820 pieces) were issued to the incoming class of 2006.

1. ISSUES/RECOMMENDATIONS

a. Issue #1: Statement of Work. The Directorate of Logistics had to develop a statement of

MALO-CS (700-84)

26 September 2002

SUBJECT: After Action Report for Treatment of Battle Dress Uniforms (BDUs) with Perethrin Insect Repellent

work to treat the BDUs. The statement of work concerning the treatment process was extracted totally from Natick Soldier Support Center and did not specifically address contract compliance and quality control (random sampling, compliance, etc).

- (1) Discussion: USMA had to rely heavily upon information obtained from Natick Soldier Support Center to develop the statement of work. USMA does not have the technical expertise and resources to develop a statement of work (description and specifications) and evaluation (process compliance and testing criteria) to ensure BDUs were treated IAW the patents. USMA had to rely on Natick Soldier Support Center to serve as its agent for processing verification.
- (2) Recommendation: That future factory treatment of BDUs occur at the wholesale level of logistics where the specifications, statements of work, and quality control measures are in place, standardized, and resourced.
- b. Issue #2: Shipment Discrepancies. The rapid execution of the USMA treatment contract required immediate collection and shipment of BDU uniforms. Discrepancies were found between International Garment Technologies and USMA in shipping documents as to the quantities and stock number of BDUs shipped. Errors were found in cases where boxes were mislabeled (size and NSN) as to actual contents.
- (1) Discussion: USMA's practice of customizing BDUs with local stock numbers for shirt kits (BDU shirts with Army Tape and USCC shoulder sleeve insignia applied) may have contributed to the problem. Additionally, errors in repackaging excess stock after previous issues and depot packaging/shipment errors are also likely to have contributed to the problem. Overall quantities treated were in compliance with what was shipped, however, identity of actual sized items (actual NSN) will require adjustments.
- (2) Recommendation: That treatment of BDUs be performed at the wholesale level after manufacturing under the appropriate NSN for permethrin treated hot weather BDUs accordingly. The wholesale logistics level can provide greater flexibility to not only future Army requirements, but also other emerging DoD component service requirements.

2. LESSONS LEARNED

a. Funding: DOL was provided 106K from USMA to treat the entire fleet of both issued and un-issued BDU stocks. Treatment costs were not passed on to the Cadet for the initial fielding.

SUBJECT: After Action Report for Treatment of Battle Dress Uniforms (BDUs) with Permethrin Insect Repellent

- b. Logistics unique issues: The concept development, treatment plan, basis of issue per class, and subsequent processing required a highly flexible approach across the installation. The USMA Directorate of Contracting responded expeditiously to a short notice, contracting requirement. The U.S. Corps of Cadets executed a turn-in plan that enabled the contractor to meet required suspense dates and timelines to outfit upper-class cadets with treated BDUs prior to their departure for vacation and summer training worldwide.
- c. Doctrine: The long-term effectiveness of treated BDUs in protecting against ticks and other insects remains to be fully evaluated at USMA. As of this date, there is no clinical evidence that the permethrin treated BDU uniforms (factory treated or IDA kits) caused discomfort or rashes to cadets or military personnel supporting field training at USMA. Conditions of the Hudson Valley this past year (mild winter, followed by a hot dry summer) was optimal for the survival and reproduction of ticks. There were fewer cases of cadets diagnosed with tick borne disease in 2002. Diagnosis for Lyme's Disease among the cadet population for CY 2002 was 0 as compared to CY 2001 at 10 cases. In should be noted that the season for tick borne disease is not over yet.
- d. Organization: During the treatment and fielding process there were no reported instances of irritation as a result of repeated handling of treated BDUs at the Laundry Plant, the Storage Activity, or the Cadet Uniform Factory. Logistics staff personnel were heavily involved over a two-day period in both issuing and modifying (sewing on nametapes) approximately 6,000 treated shirts to the incoming cadet class.
- e. Training: The effectiveness of the treated BDU may provide lessons learned for other protection measures or expanded treatment procedures and applications (other uniform components). Leaders at all levels should provide feedback to the medical and logistical communities. USMA has received numerous inquiries in regard to its experience with permethrin treated uniforms. U.S. Army South (DCSLOG) and the Citadel have both expressed interest and information concerning processing and treatment applications.

f. Leadership: N/A

- g. Material: Mr. Bartley McNally of Natick Soldier Support Center conducted a site visit to International Garment Technologies and performed follow-on testing of one of the treated BDU shirts. The test results indicated that the BDU was treated well above minimum target levels. Specific results indicated an application on the BDU blouse of 0.153mg/cm sq. Target application is 0.125mg/cm sq. It should be noted that the testing process destroyed the shirt tested.
- h. Support: Tremendous support was provided by the following West Point activities in enabling this process: U.S. Corps of Cadets; West Point Medical Activity (MEDDAC); USMA Directorate of Contracting; USMA Directorate of Logistics (Laundry Branch, Cadet Supply, and Cadet Services Division). The following external agencies provided critical information and advice in completing the project: Natick Soldier Support Center and Defense Logistics Agency (DSCP).

MALO-CS (700-84) 26 September 2002 SUBJECT: After Action Report for Treatment of Battle Dress Uniforms (BDUs) with Permethrin Insect Repellent

4. CONCLUSION: The treatment of the BDUs was a tremendous logistical success in an overall MACOM approach to provide a greater degree of protection to USMA Cadets, Staff and Faculty (military personnel) training in a high-risk area for Lyme's Disease. The BDUs were treated in an expeditious manner with limited information, time, resources, and experience. Mr. Jim Kane, the BDU Clothing Manager from Defense Supply Center Philadelphia (DSCP) has indicated that DSCP should be able to support USMA's requirements for treated uniforms for the incoming Plebe class. It is recommended that factory treated BDUs be available directly from the wholesale level supply system (DLA) to support our future requirements and sustainment.

5. POC is William P. Barriage (845) 938-6762.

Encls

DENNIS E. GOLDBAUGH Director of Logistics

1. Treatment Label/BDU shirts/trousers

2. Treatment Vendor Info Tag

CF:

USCC C/S, ATTN: COL Michael Phillips

S4, USCC, ATTN: MAJ Bradley MEDDAC, ATTN: COL Craig DOC, ATTN: LTC Cogossi

U.S. Army Soldier Support Center, ATTN: Mr. Bartley McNally U.S. Army Soldier Support Center, ATTN: Ms. Kathy Swift Defense Supply Center Philadelphia, ATTN: Mr. Jim Kane

Defense Supply Center Philadelphia, ATTN: Ms. Dianne Scheuermann